

PATENT  
Atty. Docket No.: 1600-25 (BR040489)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Michel Therin et al	Examiner: Melanie Ruano Tyson
Serial No.: 10/690,625	Group: Art Unit 3773
Filed: October 23, 2003	Dated: February 8, 2010
For: PROSTHESIS FOR REINFORCEMENT OF TISSUE STRUCTURES	

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENT IN RESPONSE TO FINAL OFFICE ACTION

Sir:

In response to the final Office Action mailed November 6, 2009, favorable reconsideration of this application is respectfully requested.

A listing of claims begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

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CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)

I hereby certify that this correspondence is being transmitted on the date below with the United States Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450, via electronic submission.

Dated: February 8, 2010

  
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Denise A. Glaser

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (previously presented) A composite prosthesis for reinforcement of a tissue structure, comprising a porous textile support which includes an arrangement of threads each composed of at least one filament of nonabsorbable polymer material, the textile support defining a microporous texture comprising interstices located between at least two threads at sites of contact of one thread with at least one other thread, wherein, in at least one protected zone of the textile support, a hydrophilic absorbable material coats the textile support, forming a film enveloping and penetrating into the arrangement of threads, occluding at least the microporous texture, the textile support further defining a macroporous texture comprising volumes whose surface is defined by the empty spaces between at least two threads away from the sites of contact, and whose height is defined by a thickness of the textile support, and wherein the macroporous texture of the textile support in a first portion of the protected zone is not occluded by the film and the macroporous texture of the textile support in a second portion of the protected zone is occluded by the film.

2. (cancelled)

3. (original) The prosthesis as claimed in claim 1, wherein the textile support constitutes a two-dimensional structure.

4. (original) The prosthesis as claimed in claim 1, wherein the film has a thickness of less than or equal to 500 microns.

5. (previously presented) The prosthesis as claimed in claim 4, wherein the film has a thickness from 10 to 100 microns.

6. (original) The prosthesis as claimed in claim 1, wherein at least one thread comprises several filaments of nonabsorbable polymer material, and the microporous texture additionally comprises the interstices between filaments of the same thread.

7. (cancelled)

8. (previously presented) The prosthesis as claimed in claim 1, wherein the textile support has the shape of a rectangular part and the protected zone extends along a central band of the rectangular part.

9. (previously presented) The prosthesis as claimed in claim 1, wherein the textile support is in the shape of a strip with parallel edges, the central part being a protected zone.

10. (previously presented) The prosthesis as claimed in claim 1, wherein the textile support is in the shape of a strip with parallel edges which are curved in an arch, the central part being a protected zone.

11. (previously presented) The prosthesis as claimed in claim 1, wherein the textile support is in the shape of a strip with nonparallel edges having a bulged central part and narrower lateral parts, wherein the bulging central part includes the protected zone and the narrower lateral parts being nonprotected.

12. (cancelled)

13. (cancelled)

14. (original) The prosthesis as claimed in claim 1, wherein the absorbable material is chosen from the group formed by collagens, polysaccharides, and their mixtures.

15. (original) The prosthesis as claimed in claim 1, wherein the tissue structure is an extraperitoneal tissue.

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (withdrawn) A process for preparing a composite prosthesis for reinforcement of a tissue structure, said process comprising the following steps: i) preparing a solution A of a hydrophilic absorbable material, in the fluid or liquid state, ii) impregnating at least part of the surface of a porous textile support with solution A, said porous textile support comprising an arrangement of threads each composed of at least one filament of nonabsorbable polymer material, said textile support defining a microporous texture which includes the interstices located between at least two threads at the sites of contact of one thread with at least one other thread and a macroporous texture comprising volumes whose surface is defined by the empty spaces between at least two threads away from their sites of contact, and whose height is defined by the thickness of the textile support, wherein the macroporous texture of the textile support is not occluded iii) drying the impregnated part of the textile support.

20. (withdrawn) The process as claimed in claim 19, wherein the impregnation step is done by immersing said part of the surface of the textile support in solution A.

21. (withdrawn) The process as claimed in claim 19, wherein the impregnation step is done by spraying solution A onto said part of the surface of the textile support.

22. (withdrawn) The process as claimed in claim 19, wherein solution A has a viscosity of less than or equal to 1000 centipoises.

23. (withdrawn) A composite reinforcement prosthesis obtainable by the process as claimed in claim 19.

24. (New) A composite prosthesis for reinforcement of a tissue structure, comprising a three-dimensional knitted structure which includes an arrangement of at least a first nonabsorbable thread and a second nonabsorbable thread,

the knitted structure defining a microporous texture comprising interstices located at sites of contact of the first nonabsorbable thread and the second nonabsorbable thread,

the knitted structure further defining a macroporous texture comprising empty spaces between the sites of contact of the first nonabsorbable thread and the second nonabsorbable thread,

the three-dimensional knitted structure having a height defined by a thickness of the knitted structure; and

a hydrophilic absorbable material positioned on at least a portion of the knitted structure to form a protected zone,

the hydrophilic absorbable material occluding the microporous texture in the protected zone,

wherein the macroporous texture of the knitted structure in a first portion of the protected zone is not occluded by the hydrophilic absorbable material and

the macroporous texture of the knitted structure in a second portion of the protected zone is occluded by the hydrophilic absorbable material.

REMARKS

Favorable reconsideration of this application is respectfully requested.

New claim 24 being added, claims 1, 3-6, 8-11 and 14-24 are now pending in this application. Claims 19-23 are deemed withdrawn.

Claims 1, 3-6, 8-10, and 14-18 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Schmitt in view of Scetbon. This rejection is respectfully traversed.

Claim 1 recites a textile support having a protected zone where the microporous structure is occluded, but only a portion of the *macroporous* texture is occluded and a portion of the macroporous texture remains un-occluded. The office action fails to set forth a prima facie case of obviousness in that these features are not even alleged to be shown in any of the applied references.

With respect to Schmitt, the office action does not allege that Schmitt discloses this feature. Rather, the office action states:

Schmitt discloses the size of the macropores may be modified. The applicant has failed to disclose occluding portions of the macroporous texture provides an advantage, is used for a particular purpose, or solves a stated problem, and it appears a prosthesis having a macroporous structure that is not occluded over the entire protected zone would perform equally well especially since the applicant indicates as such in the specification. Since one having ordinary skill in the art could have occluded portions of the macroporous structure and the applicant has not disclosed any benefit of doing so, such a modification would have been an obvious matter of design choice at the time of the invention.

The fact that Schmitt mentions regulating the size of the trellis pores does not mean Schmitt teaches or suggests to occlude those pores. Thus, in the Schmitt trellis, the macropores are not occluded in any portion of the trellis. Apparently recognizing this deficiency in Schmitt, the office action then states that "one having ordinary skill in the art *could have* occluded

portions of the macroporous structure". (Emphasis added.) Because no prior art is cited for this proposition, this is a classic case using impermissible hindsight to arrive at the claimed subject matter. The only basis for one skilled in the art to provide a protected zone where the microporous structure is occluded but only a portion of the macropores are occluded is the teaching to do so in Applicants' specification. Certainly the office action provides no citation to any prior art that would urge one skilled in the art to do so.

Scetbon fails to remedy the deficiencies of Schmitt. Scetbon does not relate to a textile structure where only a portion of the macroporous texture in a protected zone is occluded and a portion of the macroporous texture remains un-occluded. In Scetbon, either the textile is coated or it is not. There is no disclosure of occluding the microporous structure in a protected zone and occluding only a portion of the macropores in that protected zone (leaving other macropores un-occluded). Like Schmitt, therefore, Scetbon fails to disclose a textile structure that has a first portion where the macroporous texture is occluded and a second portion where the macroporous texture is not occluded. Thus, Scetbon cannot possibly cure this deficiency of Schmitt.

Accordingly, withdrawal of the rejections regarding claims 1, 3 through 6, 8 through 10 and 14 through 18 as recited above is respectfully requested.

Claim 11 was also rejected under 35 U.S.C. §103(a) as being unpatentable over Schmitt in view of Scetbon and further in view of EP 0774240 A1 to Landgrebe et al. (hereinafter referred simply to as "Landgrebe"). Claim 11 depends from claim 1 and therefore includes all the limitations of claim 1. This rejection is respectfully traversed.

As noted above, neither Schmitt nor Scetbon, taken alone or in any combination, render obvious claim 1 or any claim depending therefrom. Landgrebe does not, and is not cited in the office action as curing the above-noted deficiencies of Schmitt and Scetbon. Rather, Landgrebe



cited for the shape of the implant. Thus, Schmitt, Scetbon, nor Landgrebe, taken alone or in any combination, render claim 11 obvious and withdrawal of the rejection of claim 11 under 35 U.S.C. § 103(a) is respectfully requested.

New claim 24 relates to a three dimensional textile having a protected zone where the microporous structure is occluded, but only a portion of the macroporous texture is occluded and a portion of the macroporous texture remains un-occluded. None of the art applied in the office action mentions or relates to three dimensional textiles, let alone such textiles having a protected zone with the recited features. Accordingly, immediate allowance of claim 24 is respectfully requested.

In view of the foregoing, this application is believed to be in condition for allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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